

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A wireless headphone assembly, including:
 - at least two ultrasound receivers for receiving at least two ultrasound signals along at least two ultrasound channels;
 - at least two transducers for converting each of said ultrasound signals of said ultrasound channels to human audible signals, each of said two transducers being located on an earpiece;
 - wherein said at least two ultrasound receivers, called a right receiver and a left receiver, provide ultrasound signals through front and rear channels to the right and left ears of a user, wherein the right receiver provides a front right signal to the right ear and the left receiver provides a front left signal to the left ear, and wherein the right receiver provides a rear left signal to the left ear and the left receiver provides a rear right signal to the right ear,
 - and wherein each said rear channel is accompanied by a delay operative to simulate an acoustic delay occurring between the arrival of sound from a signal source at both ears of the user.

Claims 2-8 (Canceled).

9. (Previously presented) A headphone system according to claim 22, wherein the use of ultrasound for transmitting said modulated carrier to said at least one headphone assembly is operative to cause a listener using said headphone assembly to experience surround sound effects that said listener would experience if the multi-source signal were transmitted in free space as audible sound waves from suitably located sound sources.

10-21. (Canceled)

22. (Currently amended) A headphone system providing a simulated, multi-source sound environment, including at least one headphone assembly to be worn by a user, said assembly including:

at least two ultrasound receivers for receiving at least two ultrasound signals along at least two ultrasound channels;

at least two transducers for converting each of said ultrasound signals of said ultrasound channels to human audible signals, each of said two transducers being located on an earpiece;

wherein said at least two ultrasound receivers include a right receiver and a left receiver and provide ultrasound signals through front and rear channels to right and left ears of a user, wherein the right receiver provides a front right signal to the right ear of the user and the left receiver provides a front left signal to the left ear of the user, and wherein said right receiver provides a rear left signal to the left ear of the user and said left receiver provides a rear right signal to the right ear of the user, and

wherein each said rear channel is accompanied by a delay for simulating an acoustic delay occurring between the arrival of sound from a signal source at both ears of the user;

said system further including:

at least one processor receiving a multi-source signal and modulating an ultrasound carrier along a plurality of channels in accordance with said multi-source signal,

at least one transmitter for transmitting said modulated ultrasound carrier to said headphone assembly along said plurality of channels; and

wherein said front channels are directly connected to said transmitter and said rear channels are connected in a cross-wise manner to said transmitter.

23-24. (Canceled)